A NUMBER GAME

equals 1.62 (both quotients are an approximation to the "golden ratio"value), it follows that the final result of the computation can easily be guessed. Thus for instance in the case

$\frac{8\text{th term x 3}}{9\text{th term}}$

the answer should be $0.62 \times 3 = 1.86$ and in the case

$\frac{9\text{th term x 2}}{8\text{th term}}$

the answer is $1.62 \times 2 = 3.24$.

If the properties of the recurrent sequences are unknown or too. little known to the participants of the game, the guessing of the final results of their computations will have a startling effect.

[Continued from page 300.]

FIBONACCI NUMBERS AND WATER POLLUTION CONTROL

Upon generating the number of solutions for varying n the similarity of the series to the Fibonacci number series was noted.

| n | 1 | 2 | 3 | 4 | 5 | 6 | |
|------|---|---|---|----|----|-----|--|
| A(n) | 1 | 3 | 8 | 21 | 55 | 144 | |

And thus we concluded that the total number of economical solutions for n cities is

$$A(n) = F_{2n}$$

where F_k stands for the k^{th} Fibonacci number. This still does not indicate which of the F_{2n} solutions is the most economical one, but places an upper bound on the total number of economical solutions to be investigated.

•**~**